LESSON 1 A Watery World

Lesson at a Glance

Students are given a blank world map, which they use to label the five ocean basins. They will refer to this map throughout the unit. To engage the learners, students will play a ball toss game with an inflatable globe. This activity serves as an informal formative assessment about learners' geography background, and at the same time creates interest in the topic. Students will be led in a mini-lesson on longitude and latitude. Then they will receive an area map with latitude and longitude information of the county in Hawai'i where they live. Using the map, they will identify a list of places on their island. The lesson will close with students posing a question and forming a hypothesis about the formation of the surface of the Earth.

Lesson Duration

Two 45-minute periods

Essential Question(s)

What is the most dominant feature on Earth and how is this feature divided?
Why is the dominance of this feature so important?
How do we pinpoint locations on the Earth?

Key Concepts

- The ocean is the Earth's dominant feature and covers approximately 70 percent of the planet's surface.
- The Earth really has only one big ocean. Although all the Earth's oceans are connected, they are further sub-categorized into five major ocean basins: The Pacific, Atlantic, Indian, Southern and Arctic basins.
- Scientists, explorers, and many travelers use longitude and latitude coordinates to locate geographic features and themselves on Earth.
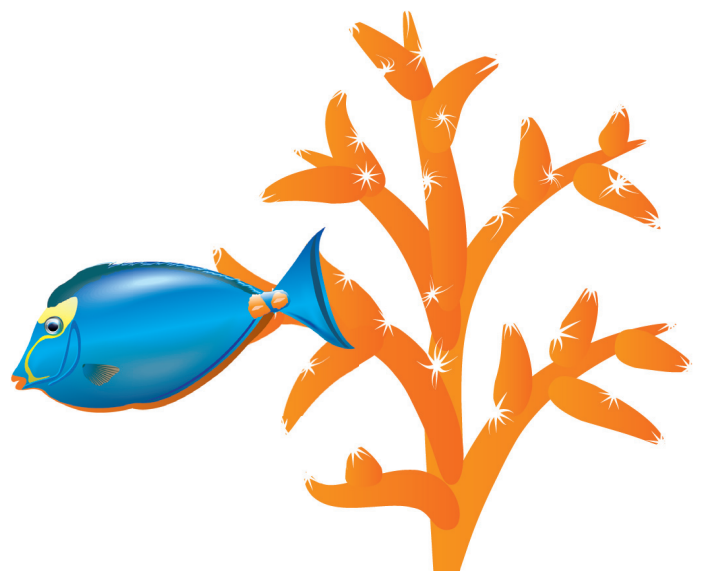
Instructional Objectives

- I can label the five ocean basins.
- I can use longitude and latitude to locate the main Hawaiian Islands.

Related HCPSIII Benchmark(s):

Social Studies: SS 4.7.2 Collect, organize, and analyze data to interpret and construct geographic representations.

Math: MA 4.8.1 Use ordered pairs to plot points on a coordinate grid.

Assessment Tools

Benchmark Rubric:

Topic		World In Spatial Terms	
Benchmark SS.4.7.2		Collect, organize, and analyze data to interpret and construct geographic representations	
Rubric			
Advanced	Proficient	Partially Proficient	Novice
Collect, organize, and analyze data to interpret and construct geographic representations, with accuracy	Collect, organize, and analyze data to interpret and construct geographic representations, with no significant errors	Collect, organize, and analyze data to interpret and construct geographic representations, with a few significant errors	Collect, organize, and analyze data to interpret and construct geographic representations, with many significant errors
Topic		Coordinate Geometry	
Benchmark MA.4.8.1		Use ordered pairs to plot points on a coordinate grid	
Rubric			
Advanced	Proficient	Partially Proficient	Novice
Use ordered pairs to plot points on a coordinate grid, with accuracy	Use ordered pairs to plot points on a coordinate grid, with no significant errors	Use ordered pairs to plot points on a coordinate grid, with a few significant errors	Use ordered pairs to plot points on a coordinate grid, with many significant errors

Assessment/Evidence Pieces

- Student Worksheet: *The Earth's Ocean Basins*

- Student Worksheet: *Coordinate Mapping Longitude and Latitude State of Hawai'iCounty*

- Student Worksheet: *World Map*

Materials Needed

Teacher	Class	Group (optional)	Student
Method to project PowerPoint	None	- 1 inflatable globe (available at office supply/ arts and crafts stores) - Legal size paper for marking tallies	- Copy of student worksheets - 1 copy of your county's longitude/ latitude map State of Hawai'i County Locations

Instructional Resources

- PowerPoint Presentation: *Where is Hawai'i?*
- Student Reading: *The Earth's Ocean Basins*
- Student Worksheet: *The Earth's Ocean Basins*
- Student Worksheet: *World Map*
- Student Worksheet: *Coordinate Mapping Longitude and Latitude State of Hawai'i County of Kaua'i*
- Teacher Answer Key: *Coordinate Mapping Longitude and Latitude State of Hawai'i County of Kaua'i*

- Student Worksheet: *Coordinate Mapping Longitude and Latitude State of Hawaiʻi County of Oʻahu*
- Teacher Answer Key: *Coordinate Mapping Longitude and Latitude State of Hawaiʻi County of Oʻahu*
- Student Worksheet: *Coordinate Mapping Longitude and Latitude State of Hawaiʻi County of Maui*
- Teacher Answer Key: *Coordinate Mapping Longitude and Latitude State of Hawaiʻi County of Maui*
- Student Worksheet: *Coordinate Mapping Longitude and Latitude State of Hawaiʻi North Half of County of Hawaiʻi*
- Teacher Answer Key: *Coordinate Mapping Longitude and Latitude State of Hawaiʻi North Half of County of Hawaiʻi*
- Student Worksheet: *Coordinate Mapping Longitude and Latitude State of Hawaiʻi South Half of County of Hawaiʻi*
- Teacher Answer Key: *Coordinate Mapping Longitude and Latitude State of Hawaiʻi South Half of County of Hawaiʻi*
- Teacher Resource: http://www.coexploration.org/oceanliteracy/documents/OceanLitChart.pdf (download as reference during classroom instruction)

Student Vocabulary Words

archipelago: a group of islands.

longitude: imaginary lines used for finding locations on the Earth; these lines run vertical north to south and meet at each of the poles.

latitude: imaginary parallel lines that are used to find locations on the Earth; these lines run east to west, away from the equator.

ocean: the largest body of seawater on Earth. (The word *ocean* comes from *okeanos*, the Greek god of sea and water.)

sea: a large body of salt water that is smaller than an ocean. Seas are partly surrounded by land.

Lesson Plan

Lesson Preparation

- Make copies of Student Worksheets, one per student. (Note: The Student Worksheet *Mapping Longitude and Latitude State of HawaiʻiCounty of….* only make copies of the worksheet that represents the county that applies to your class.)
- Make sure you have a class world map, or make an overhead copy of the students map.
- Prepare a piece of chart paper divided into six columns and each column labeled with the name of one of the five ocean basins and label the last column *Land*.
- Find an inflatable or soft globe to use in the game. Caution: the inflatable globes are often not accurate depictions of the Earth. For other options for this activity look at Grade 5 Unit 6 Life in the Open Ocean, Lesson 1.
- Students should keep their maps taped inside their science journal, and record their vocabulary, questions, predictions, and other worksheets and assessments. Alternatively, you may use construction paper to make folders labeled: *Ocean Geography* and keep a portfolio of all the students' work for the unit in this folder.
- Preview the PowerPoint Presentation *Where is Hawaiʻi?* and make arrangements to project it.

I.   *Introducing the lesson*
A. Post the Learning Objectives *I can* statements and review these statements as a group. Have students sit in a circle, and begin the lesson by telling the students that they will be learning about the geography and geology of the ocean basins. Ask the students whether they can name the ocean basins and share any interesting facts about them.
B. Tell students you are going to play a short game – *World Toss Name Game* – Great way to engage students, to make them aware how much of the world is covered with water.
C. Post the chart paper that is divided into six categories: Pacific, Atlantic, Indian, Arctic, Southern Ocean (Antarctic), and Land.
D. Hold up an inflatable world ball, and tell the students: *We are going to play a game tossing our world ball to each other, and will keep a tally of how many times your right thumb lands on an ocean. Our recorder, _____, will keep count of each time someone's right thumb lands on an ocean.*

Instructions for World Toss Name Game:
1. Have one student start by saying someone's name and tossing the inflatable world to that student.
2. When the student catches the inflatable world, have that student read aloud where his/her right thumb is located.
3. Have the students continue tossing the world around the circle in this manner, calling the receiving student's name before the world globe is tossed. (This helps build inclusion.)
4. Once a person's name has been called, that person should fold his/her hands in front to signal he/she has already had a turn.
5. Every time students catch the *world* and read where their right thumb is located, the recorder will keep track, using tally marks, when the student's thumb is on one of the ocean basins or on land.
6. Repeat the same pattern of tossing the *world* around the circle several times, keeping track of the number of times someone's thumb lands on an ocean or on the land.
7. On the board calculate the percent of times the thumb landed on ocean and the percent on land.

Reflection Questions
After students have played the game and results have been recorded onto the chart paper, ask them the following reflection questions:

1. What did you notice about our tally marks? (*You should see that a greater percentage of the time their thumb landed on an ocean.*)
2. Why do you think so many people's thumb landed on an ocean? (*Approximately 70 percent of the world's surface is ocean.*)
3. What are the five ocean basins? (*Pacific, Atlantic, Southern (Antarctic), Indian, and Arctic Oceans.*)
4. What are some things you already know about some of these ocean basins? (*Varied responses.*)
5. What do you think the ocean does for the world? What are its functions? (*Varied responses.*)

II. *World Map - Label the Ocean basins*

   A. Review the *I can* statements once again, distribute the Student Worksheet *World Map*, and have students label the ocean basins. Walk around the classroom and check for understanding and accuracy.

   B. After students have labeled their world map with the ocean names, engage students in discussion with the following questions:

      1. Which Ocean is the largest? (*Pacific*)
      2. Which Ocean is between North America and Europe? (*Atlantic*)
      3. Which Ocean is bordered by Africa, Asia, and Australia? (*Indian*)

   C. Develop the concept that the Ocean is one big system. Refer to the Ocean Literacy Essential Principles to aide in this discussion. http://www.coexploration.org/oceanliteracy/documents/OceanLitChart.pdf

   All answers are "yes" but responses may lead to class discussion

      1.   Are the ocean basins connected?
      2.   Does the ocean and life in the ocean shape the features of the Earth?
      3.   Is the ocean a major influence on weather and climate?
      4.   Does the ocean make Earth habitable?
      5.   Does the ocean support a great diversity of life and ecosystems?
      6.   Are the ocean and humans interconnected?
      7.   Is the ocean largely unexplored?

III. *Coordinate Mapping Longitude and Latitude*

Note: This activity should not be the first introduction to Longitude and Latitude. The background for this activity is in another content area.

   A. Show the PowerPoint, *Where is Hawaiʻi?*, and using the notes on each slide to teach the lesson. Tell students to take notes in their journals. Have ready copies of the map of your county taken from the power point for each student. Don't hand out until called for in the PowerPoint.

   B. Explain the connection between the word *long*, as it relates to longitude lines running vertical north and south (One trick for remembering: Think of the "O" as a globe, where the "l" wraps around the O, pole to pole), and contrast this with latitude lines, which run horizontally, east and west, parallel to the equator. Latitude is degrees above (N) or below (S) the Equator; longitude is distance east or west of the prime meridian. Both are measured in terms of the 360 degrees (symbolized by °) of a circle. Imaginary lines of latitude and longitude intersect each other, forming a grid that covers the Earth and helps us locate points on it.

   C. The latitude and longitude of a point are called its coordinates. If you know the coordinates, you can use a map to locate any point on Earth. (Adapted from National Geographic's *Exploring Your World: The Adventure of Geography)*

   D. Have students identify the places listed on the *State of Hawaiʻi County Locations* for their county or island. You may also choose other coordinates for students to identify. You may also delete or include more information on the student worksheets depending on time available for the exercise.

Extended Activity:

   As an extra activity, students could go on Google Maps and type in a set of locations on their table to get a up close look of that exact location. For example Honolulu N21° 18.733' W157° 50.747' will pull up the middle of Punchbowl on the Google map. Using other numbers they could find the exact location of their school or home.

LESSON 1 Student Reading

The Earth's Ocean Basins

The five ocean basins from largest to smallest are: the Pacific, Atlantic, Indian, Southern, and Arctic.
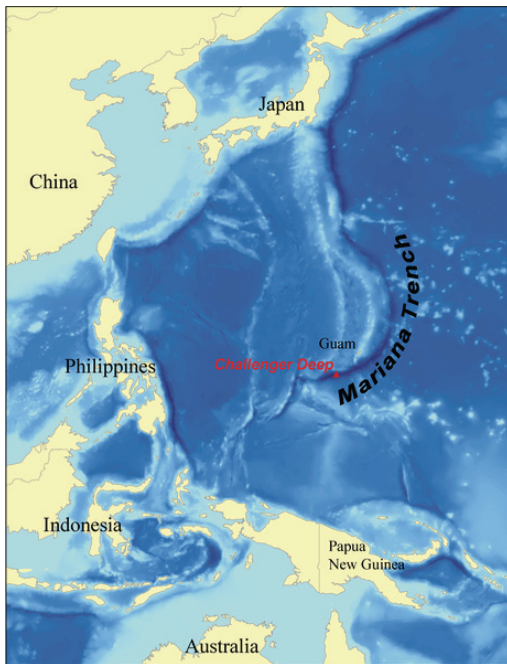

The Pacific Ocean is the largest and deepest ocean in the world. It covers 63,800,000 square miles (165,200,000 square km), a third of the Earth's surface. The Pacific Ocean is bigger than all of the Earth's continents combined. The Pacific was named by Ferdinand Magellan, the Portuguese explorer who found the Pacific very peaceful (**pacifique,** in French) for most of his journey from the Straits of Magellan to the Philippines. In contrast to its name, the islands of the **peaceful ocean** are often slammed by devastating typhoons and hurricanes. The countries that border the Pacific, or the Pacific Rim, often experience volcano eruptions and Earthquakes.

The Pacific Ocean is also home to the lowest point on Earth and deepest part of the Ocean known as the Mariana Trench, an area that is 35,800 feet (10,911 meters) below sea level. There are 25,000 Pacific islands in the Pacific Ocean — more than in any other ocean.

The Indian Ocean is the third largest in the world, makes up approximately 20 percent of the Earth's water surface, and covers approximately 28,356,000 square miles (73,441,700 square kilometers). The deepest
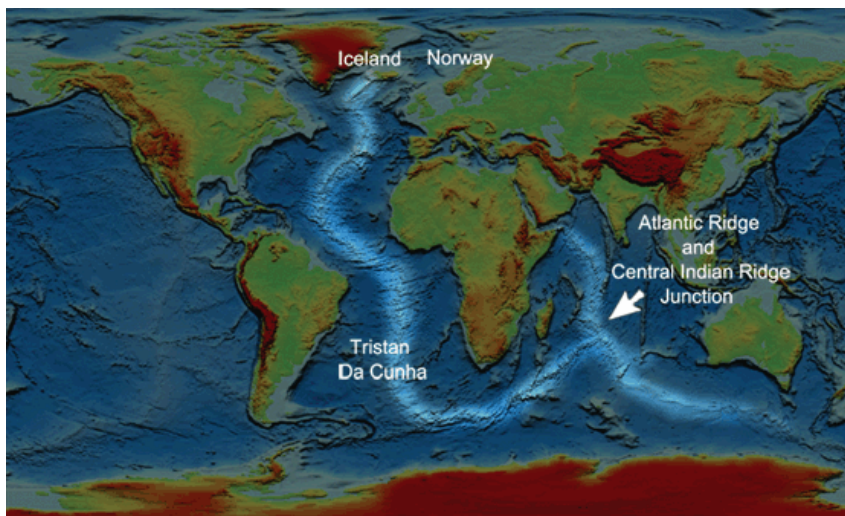

spot, south of Java, is 25,344 feet (7,725 meters). Some other geographical features of the ocean include small islands around the continental rims such as Madagascar (the world's fourth largest island), Comoros, Seychelles, Maldives, Mauritius, Sri Lanka, and Indonesia. Underneath the surface of the Indian Ocean lies the convergence of the African, Indian, and Antarctic plates. The Y-shaped branches of the Mid-Oceanic Ridge mark this convergence.
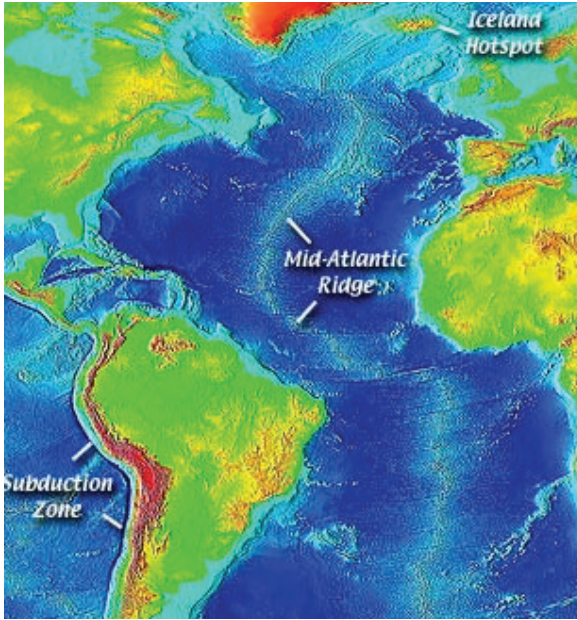
The Atlantic Ocean is the second-largest ocean. Its name is derived from the **Sea of Atlas** in Greek mythology. This ocean covers approximately one-fifth of the entire global ocean. The Atlantic Ocean covers approximately 31, 530,000 square miles (81, 662, 000 square kilometers). Its average depth is approximately 14,000 feet (4,270 meters). The deepest part of the Atlantic Ocean is the Puerto Rico Trench, which is 28, 374 feet deep (8,648 meters). Below the surface, the ocean floor has an S-shape basin that extends north to south. A giant submarine mountain range, called the Mid-Atlantic Ridge, extends from Iceland in the north to approximately 58° south latitude. A rift valley, or valley formed by faults, extends along most of the length of the Mid-Atlantic ridge. This ridge is less than 8,858 feet (2,700 meters) deep in many places, with mountain peaks that rise up to form islands above water. Some of these islands include: Greenland, Iceland, Great Britain, Ireland, the Azores, the Madeira Islands, the Canaries, Cape Verde Islands, Newfoundland, Bermuda, West Indies, Ascension, St. Helena, Falkland Islands, and South Georgia Island. The coasts of the Atlantic are marked with numerous bays, gulfs, and seas, including the Caribbean Sea, the Gulf of Mexico, Gulf of St. Lawrence, Mediterranean Sea, Black Sea, North Sea, Baltic Sea, and the Norwegian-Greenland Sea.

The Southern Ocean (Antarctic) is the world's fourth-largest body of water. It encircles Antarctica and is actually divided among the Atlantic, Indian, and Pacific Oceans. Most people of North America and Continental Europe have no name for the area, and regard the area as parts of the Atlantic, Pacific, and Indian Oceans simply extending to Antarctica. However, because mariners have long referred to this area as the **Southern Ocean,** the International Hydrographic Organization accepted it as an ocean in 2000. This ocean is predominantly deep water, averaging 13,000-16,500 feet (4,000–5,000 meters) deep, and includes the Antarctic continental shelf, an unusually deep and narrow shelf surrounding the Antarctic continent with a steep edge 1,300-2,625 feet (400–800 meters) deep, which is more than 885-2,200 feet (270–670 meters) deeper than average continental shelves. The South Sandwich Trench is the lowest part of the southern ocean at 24,000 feet.
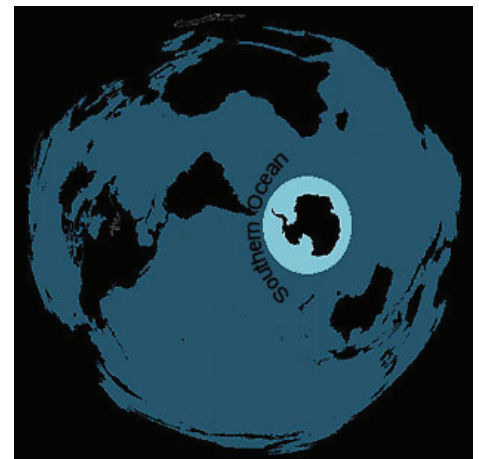
The Arctic Ocean lies at the top of the world and covers approximately 3,662,000 square miles (9,485,100 square kilometers). Its greatest depth is 17,880 feet (5,450 meters). The topography of the Arctic Ocean bottom varies. It consists of fault-block ridges, abyssal plains, and the ocean basin has an average depth of 3,406 feet (1,038 meters) due to the continental shelf on the Eurasian side. Ice covers most of the Arctic Ocean year round. If the ice melts, salinity and subfreezing temperatures vary.

LESSON 1 The Earth's Ocean Basins

Name: _____ **Date:** _____

Directions: Read the description of each ocean and then label the name of the ocean basins on the World Map.
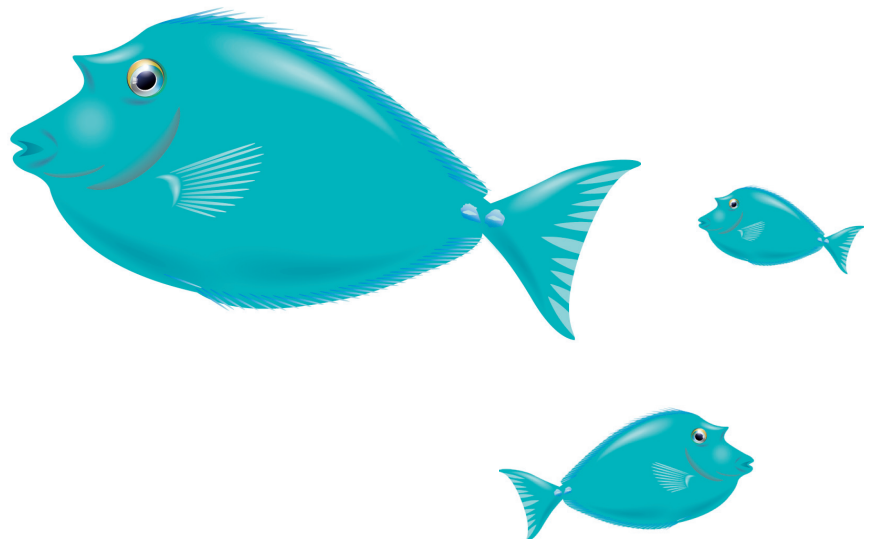
Arctic Ocean - an ocean around the North Pole, bordering northern Europe, Asia, and North America. It is the smallest ocean.

Atlantic Ocean - an ocean bordering western Europe, western Africa, Antarctica, and eastern North and South America.

Indian Ocean - an ocean bordering eastern Africa, southern Asia, western Australia, and Antarctica.

Pacific Ocean - an ocean bordering eastern Asia, northeastern Australia, Antarctica, and western North and South America. It is the biggest ocean.

Southern Ocean - the ocean bordering Antarctica and extending from 60 degrees south latitude.

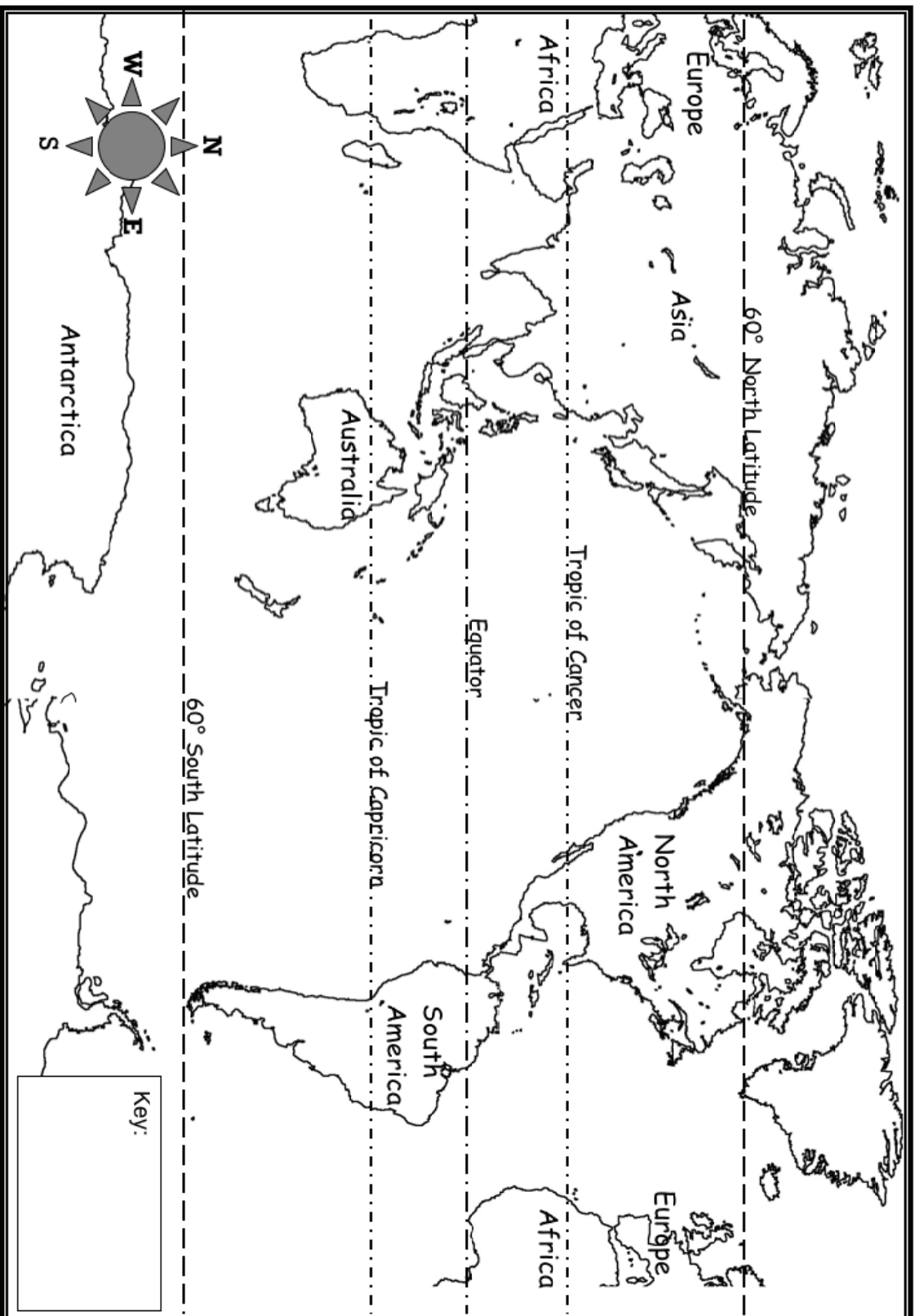# LESSON 1 World Map

Name: _____   Date: _____

60° North Latitude

Tropic of Cancer

Equator

Tropic of Capricorn

60° South Latitude

Europe

Africa

Asia

Australia

North America

South America

Africa

Europe

Antarctica

Key:

W N E S

LESSON 1
Coordinate Mapping Longitude and Latitude

Name: _____ **Date:** _____

State of Hawai'i, County of *Kaua'i*

Directions: Using the map on the following page fill in the location name using the coordinates provided.

Location	Latitude	Longitude
Pu'uwai	N21° 53' 54"	W160° 11' 32"
	N22° 02' 03"	W159° 46' 12"
	N21° 58' 06"	W159° 42' 43"
	N21° 56' 19"	W159° 38' 56"
	N21° 55' 35"	W159° 31' 36"
	N21° 54' 14"	W159° 27' 59"
Līhu'e	N21° 58' 40"	W159° 22' 04"
	N22° 04' 29"	W159° 19' 04"
Anahola	N22° 08' 33"	W159° 18' 47"
	N22° 12' 35"	W159° 24' 32"
	N22° 12' 08"	W159° 29' 59"
	N22° 10' 28"	W159° 39' 20"
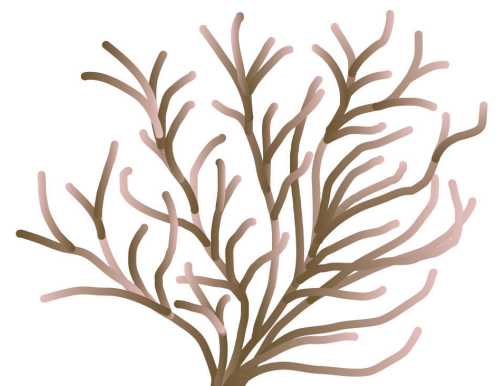
LESSON 1 Teacher Answer Key
Coordinate Mapping Longitude and Latitude

Name: _____ **Date:** _____

State of Hawai'i, County of *Kaua'i*

Directions: Using the map on the following page fill in the location name using the coordinates provided.

Location	Latitude	Longitude
Pu'uwai	N21° 53' 54"	W160° 11' 32"
Mana	N22° 02' 03"	W159° 46' 12"
Kekaha	N21° 58' 06"	W159° 42' 43"
Makaweli Landing	N21° 56' 19"	W159° 38' 56"
Kalāheo	N21° 55' 35"	W159° 31' 36"
Kōloa	N21° 54' 14"	W159° 27' 59"
Līhu'e	N21° 58' 40"	W159° 22' 04"
Kapa'a	N22° 04' 29"	W159° 19' 04"
Anahola	N22° 08' 33"	W159° 18' 47"
Kīlauea	N22° 12' 35"	W159° 24' 32"
Hanalei	N22° 12' 08"	W159° 29' 59"
Kalalau	N22° 10' 28"	W159° 39' 20"

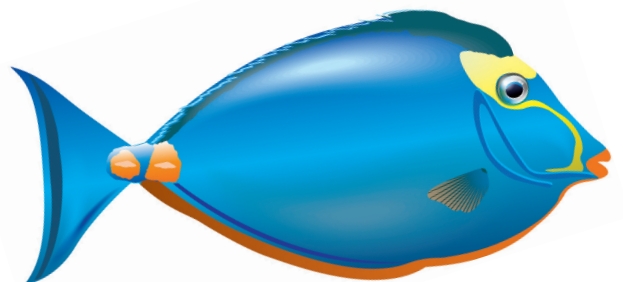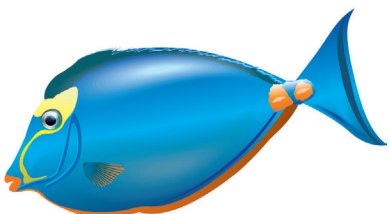# LESSON 1 Kaua'i County Map

Name: _____   Date: _____

LESSON 1
Coordinate Mapping Longitude and Latitude

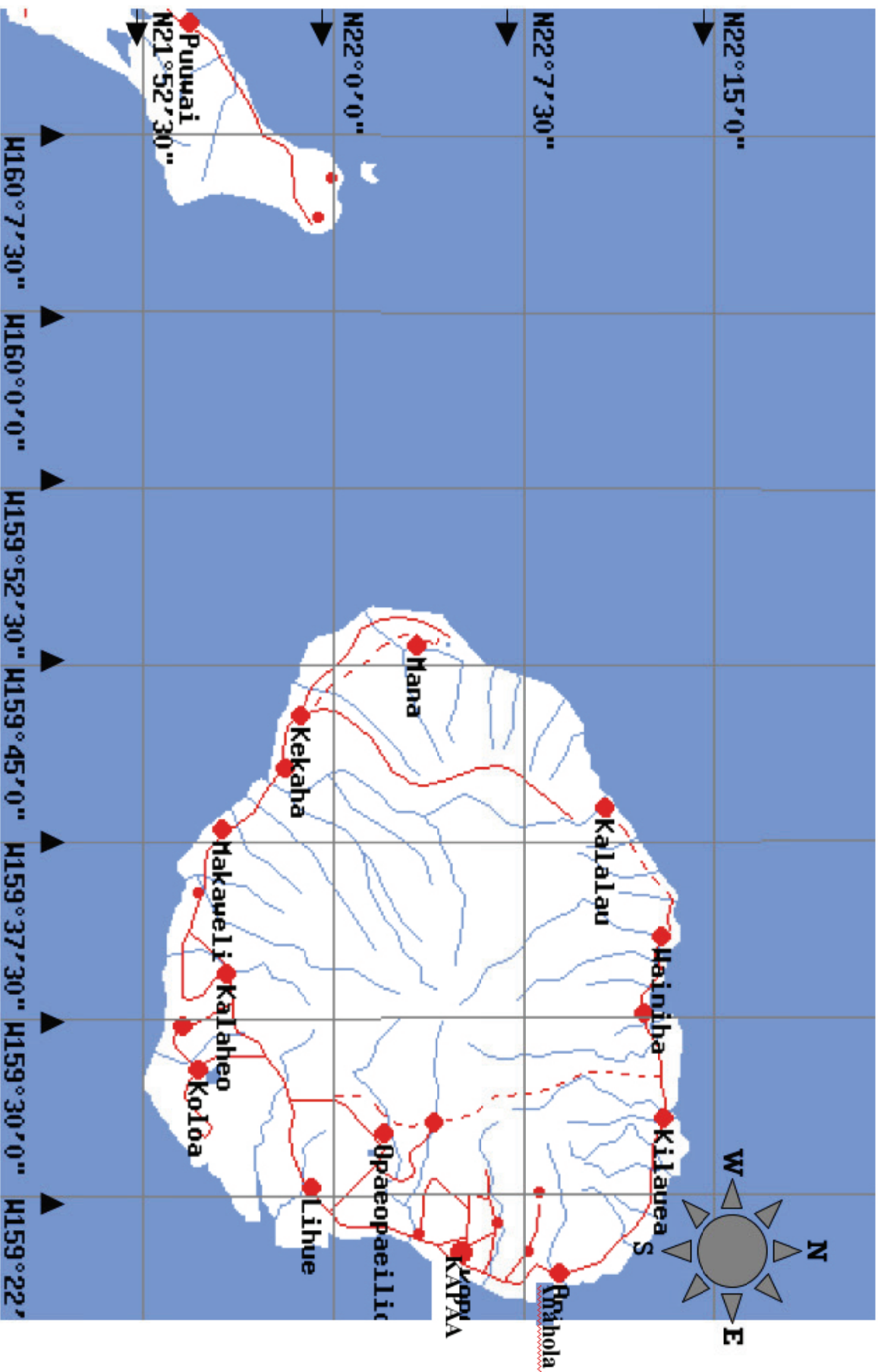**Name:** _____ **Date:** _____

State of Hawai'i, County of *O'ahu*

Directions: Using the map on the following page fill in the location name using the coordinates provided.

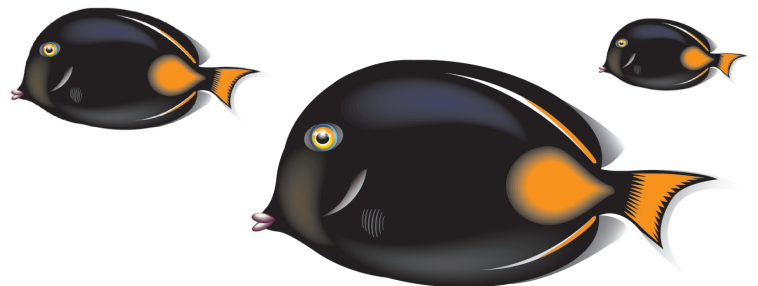| Location	Latitude	Longitude
Honolulu	N21° 18' 05"	W157° 51' 01"
	N21° 24' 54"	W157° 48' 04"
	N21° 20' 48"	W157° 43' 07"
Kailua	N21° 23' 56"	W157° 44' 11"
	N21° 29' 00"	W158° 04' 13"
	N21° 36' 26"	W157° 54' 28"
	N21° 40' 38"	W157° 56' 53"
	N21° 22' 45"	W157° 55' 53"
Maunalua Bay	N 21° 16' 19"	W157° 40' 50"
	N21° 23' 40"	W157° 58' 16"
	N21° 34' 29"	W158° 16' 49"
	N21° 26' 28"	W158° 11' 12"

LESSON 1 Teacher Answer Key
Coordinate Mapping Longitude and Latitude

Name: _____ **Date:** _____

State of Hawai'i, County of *O'ahu*

Directions: Using the map on the following page fill in the location name using the coordinates provided.

Location	Latitude	Longitude
Honolulu	N21° 18' 05"	W157° 51' 01"
Kāne'ohe	N21° 24' 54"	W157° 48' 04"
Waimānalo	N21° 20' 48"	W157° 43' 07"
Kailua	N21° 23' 56"	W157° 44' 11"
Wahiawā	N21° 29' 00"	W158° 04' 13"
Hau'ula	N21° 36' 26"	W157° 54' 28"
Kahuku	N21° 40' 38"	W157° 56' 53"
'Aiea	N21° 22' 45"	W157° 55' 53"
Maunalua Bay	N 21° 16' 19"	W157° 40' 50"
PearlCity	N21° 23' 40"	W157° 58' 16"
Ka'ena Point	N21° 34' 29"	W158° 16' 49"
Wai'anae	N21° 26' 28"	W158° 11' 12"

LESSON 1 Oʻahu County Map

Name: _____ Date: _____
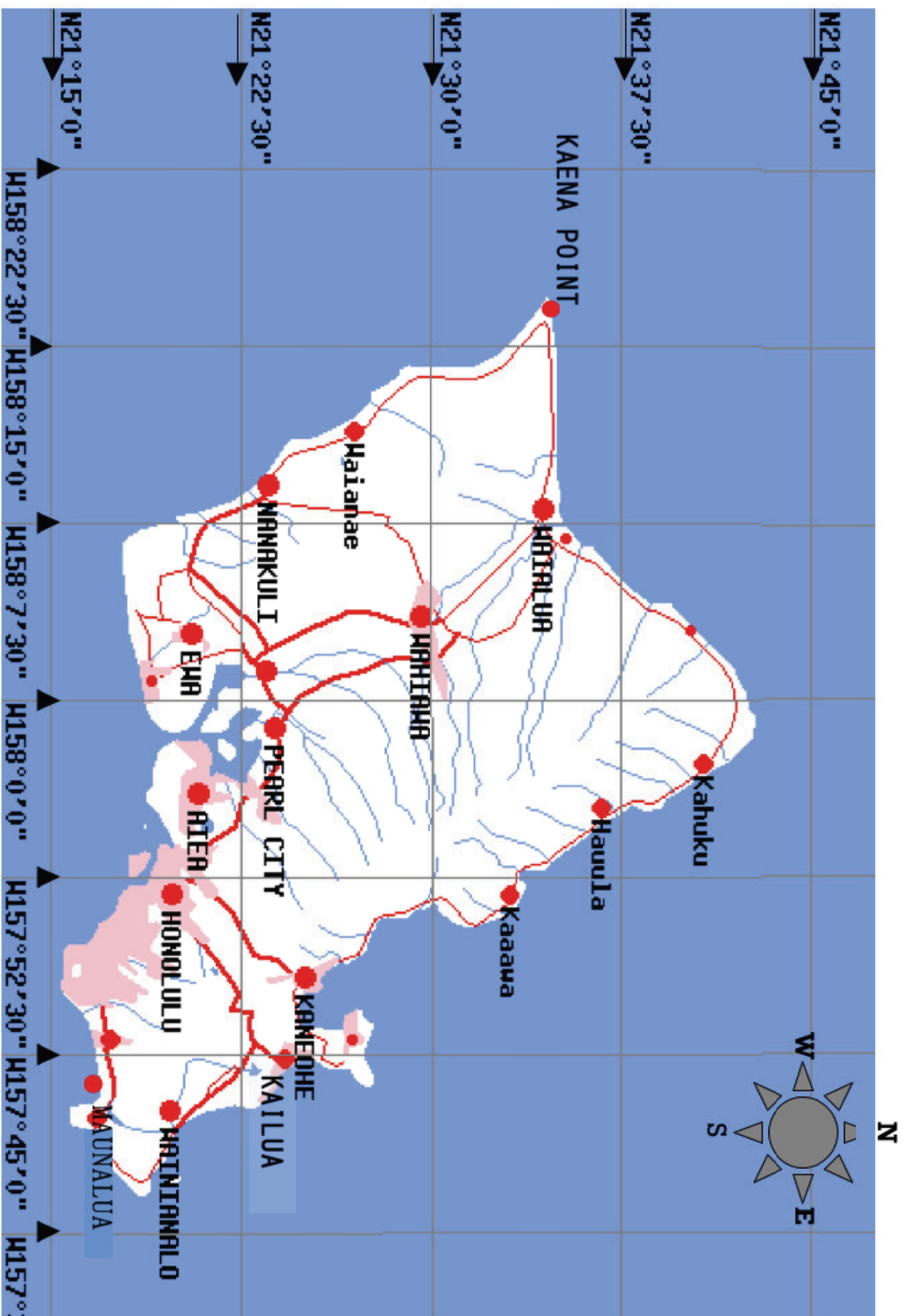
N21°45'0"

N21°37'30"

N21°30'0"

N21°22'30"

N21°15'0"

KAENA POINT

Waianae

NANAKULI

KAILUA

WAHIAWA

EWA

PEARL CITY

AIEA

HONOLULU

KANEOHE

KAILUA

WAIMANALO

MAUNALUA

Kahuku

Hauula

Kaaawa

H158°22'30" H158°15'0" H158°7'30" H158°0'0" H157°52'30" H157°45'0" H157°

N

W   E

S

LESSON 1
Coordinate Mapping Longitude and Latitude

Name: _____ **Date:** _____

State of Hawai'i, County of Maui

Directions: Using the map on the following page fill in the location name using the coordinates provided.

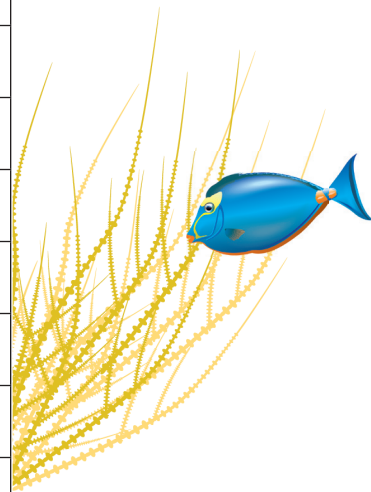| Location	Latitude	Longitude
Kalaupapa	N21° 11' 23"	W156° 59' 00"
	N21° 05' 22"	W157° 01' 13"
	N21° 04' 24"	W156° 47' 33"
	N21° 09' 26"	W156° 44' 22"
	N20° 49' 37"	W156° 55' 14"
	N20° 47' 08"	W156° 59' 08"
	N21° 00' 01"	W156° 39' 20"
	N20° 52' 29"	W156° 40' 45"
	N20° 48' 42"	W156° 37' 20"
	N20° 55' 50"	W156° 31' 41"
Wailuku	N20° 53' 16"	W156° 30' 06"
	N20° 55' 13"	W156° 18' 31"
	N20° 52' 01"	W156° 18' 22"
	N20° 46' 36"	W156° 19' 33"
	N20° 42' 20"	W156° 21' 21"
	N20° 39' 14"	W156° 26' 33"
	N20° 35' 57"	W156° 25' 14"
	N20° 45' 20"	W155° 59' 13"
	N20° 42' 09"	W155° 59' 57"
Kīpahulu	N20° 39' 11"	W156° 03' 20"

LESSON 1 Teacher Answer Key
Coordinate Mapping Longitude and Latitude

Name: _____ Date: _____

State of Hawai'i, County of Maui

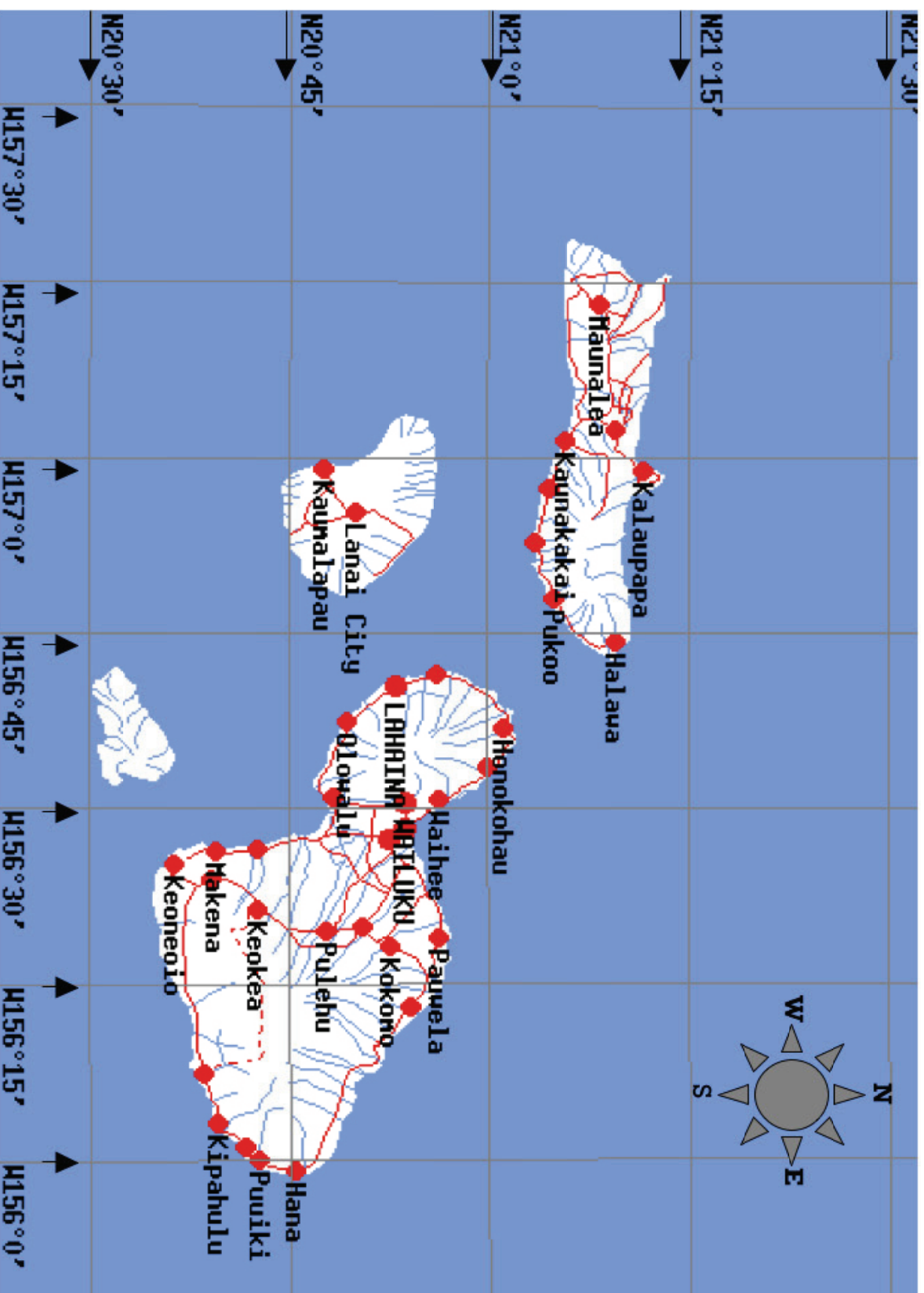*Directions:* Using the map on the following page fill in the location name using the coordinates provided.

Location	Latitude	Longitude
Kalaupapa	N21° 11' 23"	W156° 59' 00"
Kaunakakai	N21° 05' 22"	W157° 01' 13"
Puko'o	N21° 04' 24"	W156° 47' 33"
Hālawa	N21° 09' 26"	W156° 44' 22"
Lāna'i City	N20° 49' 37"	W156° 55' 14"
Kaumalapau	N20° 47' 08"	W156° 59' 08"
Honokōhau	N21° 00' 01"	W156° 39' 20"
Lahaina	N20° 52' 29"	W156° 40' 45"
Olowalu	N20° 48' 42"	W156° 37' 20"
Waihe'e	N20° 55' 50"	W156° 31' 41"
Wailuku	N20° 53' 16"	W156° 30' 06"
Pa'uwela	N20° 55' 13"	W156° 18' 31"
Kokomo	N20° 52' 01"	W156° 18' 22"
Pūlehu	N20° 46' 36"	W156° 19' 33"
Kēōkea	N20° 42' 20"	W156° 21' 21"
Mākena	N20° 39' 14"	W156° 26' 33"
Keone'ō'io	N20° 35' 57"	W156° 25' 14"
Hāna	N20° 45' 20"	W155° 59' 13"
Pu'uiki	N20° 42' 09"	W155° 59' 57"
Kīpahulu	N20° 39' 11"	W156° 03' 20"

LESSON 1 Maui County Map

Name: _____   Date: _____

Maui County Map showing the islands with labeled locations:

Molokai: Kaunalea, Kaunakakai, Pukoo, Kalaupapa, Halawa

Lanai: Lanai City, Kaunalapau

Maui: Olowalu, LAHAINA, WAILUKU, Waihee, Honokohau, Pauwela, Kokomo, Pulehu, Keokea, Makena, Keoneoio, Kipahulu, Puuiki, Hana

Compass rose: N, S, E, W

Latitude lines: N21°30', N21°15', N21°0', N20°45', N20°30'

Longitude lines: W157°30', W157°15', W157°0', W156°45', W156°30', W156°15', W156°0'
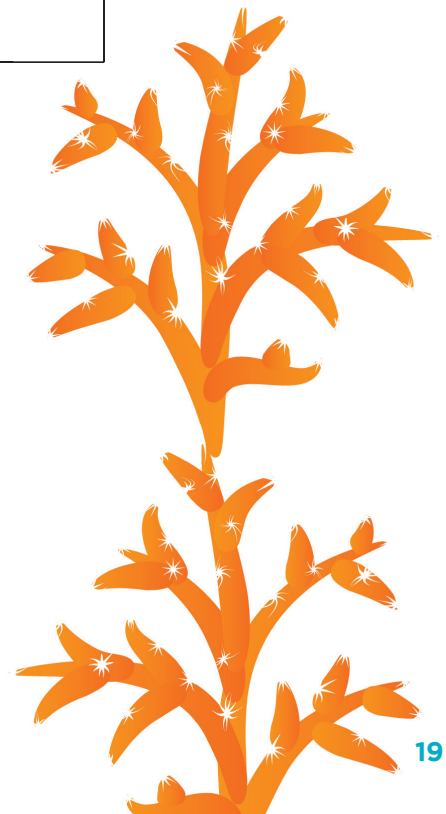
LESSON 1
Coordinate Mapping Longitude and Latitude

Name: _____ **Date:** _____

State of Hawaiʻi, North Half of County of *Hawaiʻi*

Directions: Using the map on the following page fill in the location name using the coordinates provided.

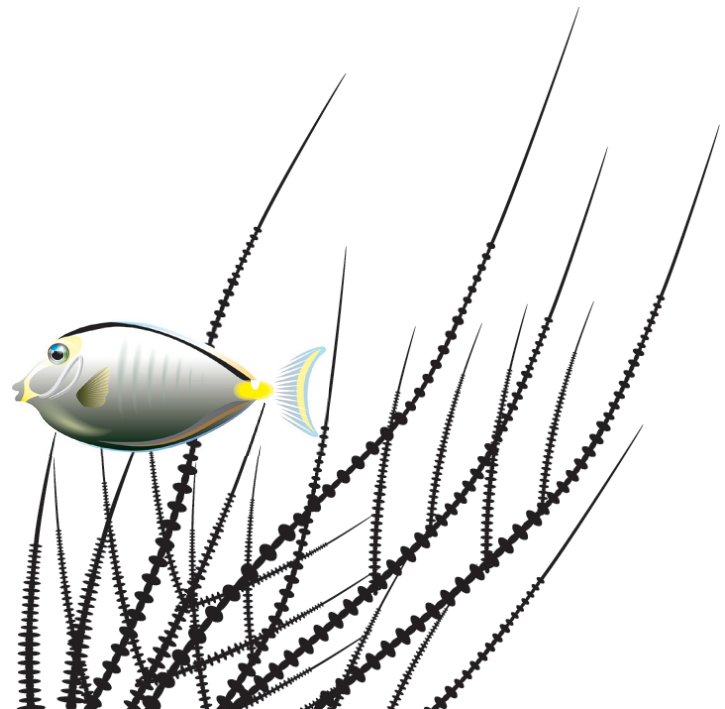| Location	Latitude	Longitude
Māhukona	N20° 11' 05"	W155° 54' 01"
	N19° 51' 21"	W155° 55' 18"
	N19° 38' 21"	W155° 59' 35"
	N19° 25' 05"	W155° 52' 48"
	N19° 29' 46"	W154° 56' 56"
Mountain View	N19° 33' 09"	W155° 06' 20"
	N19° 43' 33"	W155° 05' 22"
	N19° 52' 16"	W155° 07' 02"
	N19° 58' 31"	W155° 13' 07"
	N20° 04' 46"	W155° 28' 11"
	N19° 59' 49"	W155° 33' 26"

LESSON 1 Teacher Answer Key
Coordinate Mapping Longitude and Latitude

Name: _____ **Date:** _____

State of Hawai'i, North Half of County of *Hawai'i*

Directions: Using the map on the following page fill in the location name using the coordinates provided.
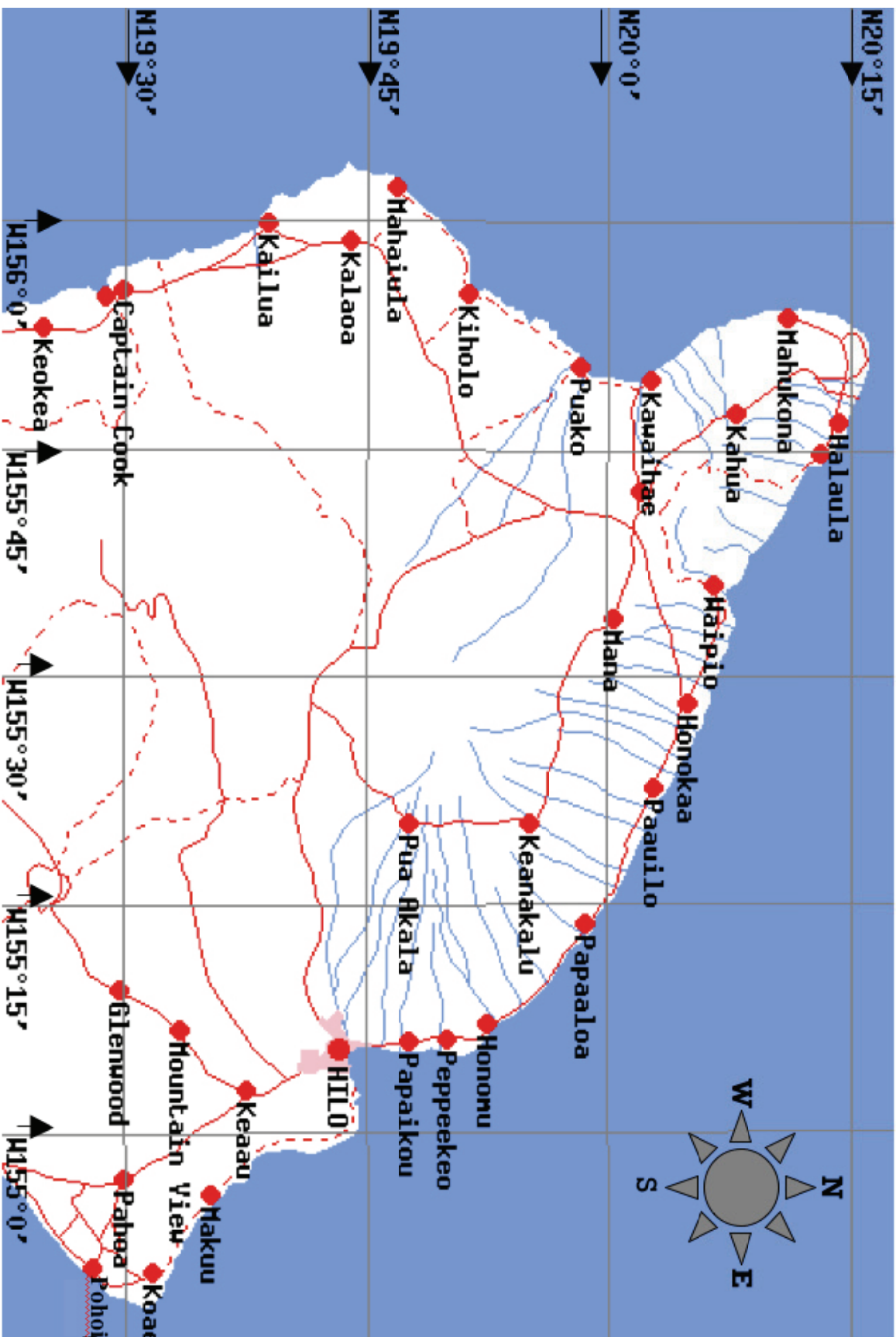
Location	Latitude	Longitude
Māhukona	N20° 11' 05"	W155° 54' 01"
Kīholo	N19° 51' 21"	W155° 55' 18"
Kailua	N19° 38' 21"	W155° 59' 35"
Kēōkea	N19° 25' 05"	W155° 52' 48"
Pāhoa	N19° 29' 46"	W154° 56' 56"
Mountain View	N19° 33' 09"	W155° 06' 20"
Hilo	N19° 43' 33"	W155° 05' 22"
Honomū	N19° 52' 16"	W155° 07' 02"
Pāpa'aloa	N19° 58' 31"	W155° 13' 07"
Honoka'a	N20° 04' 46"	W155° 28' 11"
Mānā	N19° 59' 49"	W155° 33' 26"

LESSON 1 North Hawai'i County Map

Name: _____ Date: _____

N20°15'

N20°0'

N19°45'

N19°30'

W156°0'

W155°45'

W155°30'

W155°15'

W155°0'

Mahukona

Kailua

Kalaoa

Mahaiula

Kiholo

Puako

Kawaihae

Kahua

Halaula

Waipio

Mana

Honokaa

Paauilo

Keokea

Captain Cook

Pua Akala

Keanakalu

Papaaloa

Glenwood

Mountain View

Keaau

HILO

Papaikou

Peppeekeo

Honomu
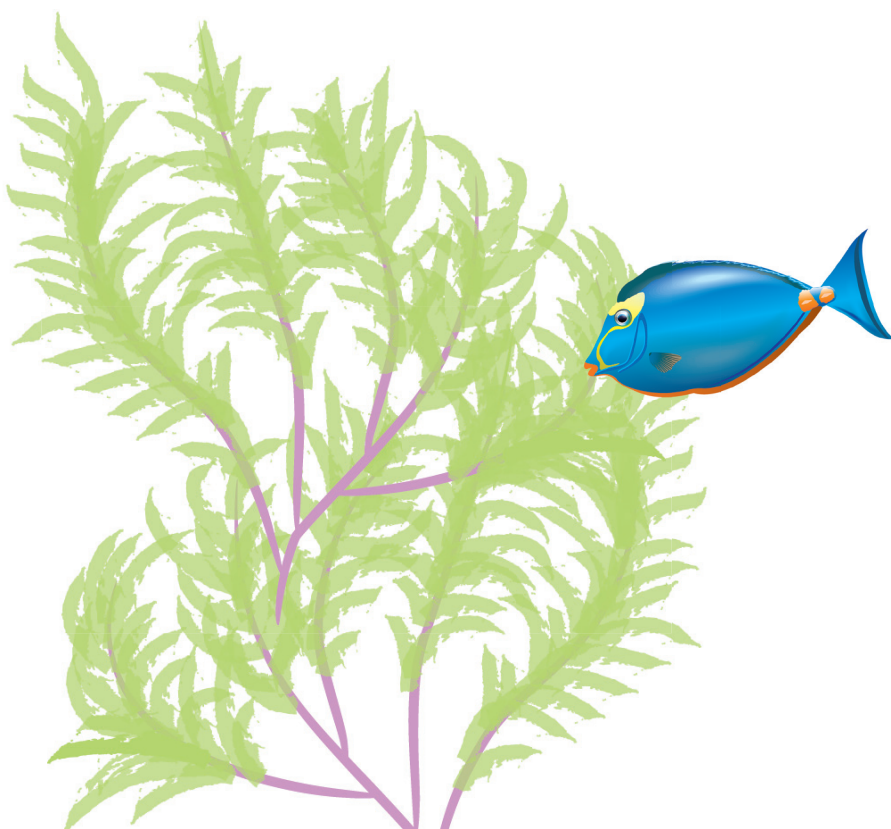
Pahoa

Makuu

Koae

Pohoi

W
N
S
E

LESSON 1
Coordinate Mapping Longitude and Latitude

Name: _____ **Date:** _____

State of Hawai'i, South Half of County of *Hawai'i*

Directions: Using the map on the following page fill in the location name using the coordinates provided.

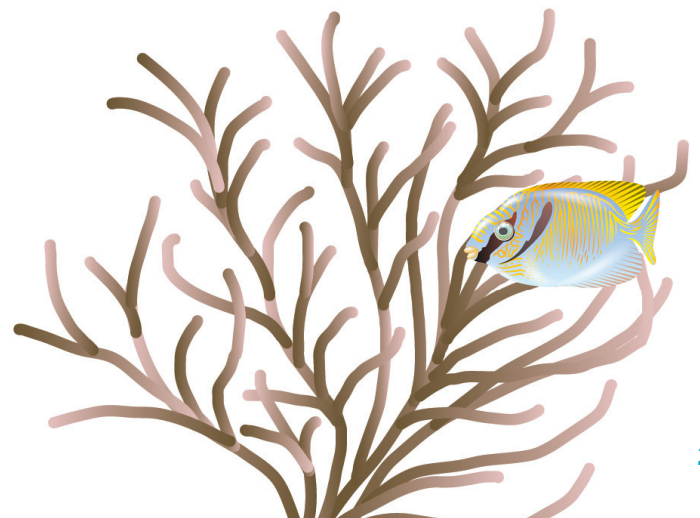| Location	Latitude	Longitude
Kailua	N19° 38' 21"	W155° 59' 34"
	N19° 12' 27"	W155° 51' 50"
	N18° 58' 16"	W155° 36' 40"
	N19° 20' 16"	W155° 00' 39"
Glennwood	N19° 29' 14"	W155° 09' 04"
	N19° 33' 09"	W155° 06' 19"
	N19° 29' 46"	W154° 56' 56"
	N19° 43' 33"	W155° 05' 21"
	N19° 47' 27"	W156° 01' 38"

LESSON 1 Teacher Answer Key
Coordinate Mapping Longitude and Latitude

Name: _____ **Date:** _____

State of Hawaiʻi, South Half of County of *Hawaiʻi*

Directions: Using the map on the following page fill in the location name using the coordinates provided.

Location	Latitude	Longitude
Kailua	N19° 38' 21"	W155° 59' 34"
Pāpā	N19° 12' 27"	W155° 51' 50"
Kaʻaluʻalu	N18° 58' 16"	W155° 36' 40"
Kupaʻahu	N19° 20' 16"	W155° 00' 39"
Glennwood	N19° 29' 14"	W155° 09' 04"
Mountain Vew	N19° 33' 09"	W155° 06' 19"
Pāhoa	N19° 29' 46"	W154° 56' 56"
Hilo	N19° 43' 33"	W155° 05' 21"
Mahaiʻula	N19° 47' 27"	W156° 01' 38"

LESSON 1 South Hawaiʻi County Map

Name: _____   Date: _____

N19°45'
N19°30'
N19°15'
N19°0'

W156°0'
W155°45'
W155°30'
W155°15'
W155°0'

Mahaiula
Kalaoa
Kailua
Captain Cook
Keokea
Papa
Kaalualu
Naalehu
Honuapo
Kuipo
Glenwood
Mountain View
Keaau
HILO
Papaikou
Pua Akala
Kupaahu
Pahoa
Koae
Makuu
Pohoiki

W
N
S
E